

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/007652

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> H05B41/24, G02F1/13357, H01F38/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H05B41/24, G02F1/13357, H01F38/10, H05K1/16, H01G4/12,  
F21V23/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

|                           |           |                            |           |
|---------------------------|-----------|----------------------------|-----------|
| Jitsuyo Shinan Koho       | 1922-1996 | Jitsuyo Shinan Toroku Koho | 1996-2005 |
| Kokai Jitsuyo Shinan Koho | 1971-2005 | Toroku Jitsuyo Shinan Koho | 1994-2005 |

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| A         | WO 03/056885 A1 (PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH, KONINKLIJKE PHILIPS ELECTRONICS N.V.),<br>10 July, 2003 (10.07.03),<br>Full text; all drawings<br>& JP 2005-513755 A<br>Full text; all drawings<br>& US 2005/0077842 A1 & DE 10200022 A1 | 1-19                  |
| A         | CD-ROM of the specification and drawings annexed to the request of Japanese Utility Model Application No. 58490/1992 (Laid-open No. 19299/1994)<br>(Enplas Corp.),<br>11 March, 1994 (11.03.94),<br>Full text; all drawings<br>(Family: none)             | 1-19                  |

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
14 July, 2005 (14.07.05)Date of mailing of the international search report  
02 August, 2005 (02.08.05)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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Telephone No.

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PCT/JP2005/007652

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | CD-ROM of the specification and drawings annexed to the request of Japanese Utility Model Application No. 32238/1992 (Laid-open No. 90897/1993)<br>(Enplas Corp.),<br>10 December, 1993 (10.12.93),<br>Full text; all drawings<br>(Family: none) | 1-19                  |
| A         | JP 2002-353044 A (Minebea Co., Ltd.),<br>06 December, 2002 (06.12.02),<br>Par. No. [0012]; Fig. 25<br>& EP 1265460 A2<br>Par. No. [0016]; Fig. 25<br>& US 2002/0176268 A1 & US 6714111 B2  | 1-19                  |
| A         | WO 02/078403 A1 (KONINKLIJKE PHILIPS ELECTRONICS N.V.),<br>03 October, 2002 (03.10.02),<br>Column 2, lines 29 to 32; Fig. 3<br>& JP 2004-524660 A<br>Par. No. [0010]; Fig. 3<br>& US 2002/0135319 A1 & US 6509696 B2                             | 1-19                  |
| A         | JP 2004-119206 A (NEC Lighting Kabushiki Kaisha),<br>15 April, 2004 (15.04.04),<br>Par. No. [0002]<br>(Family: none)   | 1-19                  |
| A         | JP 6-301034 A (Kabushiki Kaisha Ryosan),<br>28 October, 1994 (28.10.94),<br>Par. Nos. [0032] to [0039]; Figs. 8 to 13<br>(Family: none)  | 2,3                   |
| A         | JP 8-288086 A (Hitachi, Ltd.),<br>01 November, 1996 (01.11.96),<br>Full text; Figs. 1, 3<br>(Family: none)   | 7,8                   |
| A         | JP 8-273862 A (Masakazu USHIJIMA),<br>18 October, 1996 (18.10.96),<br>Full text; all drawings<br>& JP 3292788 B2 & US 5959412 A<br>Full text; all drawings   | 18                    |
| P,A       | JP 2004-241136 A (TDK Corp.),<br>26 August, 2004 (26.08.04),<br>Full text; all drawings<br>(Family: none)  | 1-19                  |

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International application No.

PCT/JP2005/007652

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| P, A      | JP 2005-63941 A (Matsushita Electric Industrial Co., Ltd.),<br>10 March, 2005 (10.03.05),<br>& US 2005/0023988 A1<br>Full text; all drawings | 1-19                  |